64TH CONGRESS, 1st Session. } HOUSE OF REPRESENTATIVES. { DOCUMENT No. 391.

MONROE HARBOR, MICH.

LETTER

FROM

THE SECRETARY OF WAR,

TRANSMITTING,

WITH A LETTER FROM THE CHIEF OF ENGINEERS, REPORT ON REEXAMINATION OF MONROE HARBOR, MICH.

DECEMBER 14, 1915.—Referred to the Committee on Rivers and Harbors and ordered to be printed, with illustration.

WAR DEPARTMENT,
Washington, December 13, 1915.

The SPEAKER OF THE HOUSE OF REPRESENTATIVES.

SIR: I have the honor to transmit herewith a letter from the Chief of Engineers, United States Army, dated October 8 last, together with copy of a report from Lieut. Col. M. M. Patrick, Corps of Engineers, dated August 2, 1915, on reexamination of Monroe Harbor, Mich., made by him in compliance with the provisions of the river and harbor act approved March 4, 1915.

Very respectfully,

LINDLEY M. GARRISON,
Secretary of War.

WAR DEPARTMENT,
OFFICE OF THE CHIEF OF ENGINEERS,
Washington, October 8, 1915.

From: The Chief of Engineers, United States Army.
To: The Secretary of War.
Subject: Reexamination of Monroe Harbor, Mich.

1. Under authority of section 14 of the river and harbor act approved March 4, 1915, there is submitted herewith for transmission

to Congress report dated August 2, 1915, by Lieut. Col. M. M. Patrick, Corps of Engineers, relative to the project for improvement of Monroe Harbor, Mich.

2. Monroe Harbor is within the mouth of Raisin River, about 18 miles north of the city of Toledo. The existing project for its improvement provides for dredging a channel 11 feet deep at mean lake level and 100 feet wide to the city docks at Monroe, and for protecting the entrance into the lake by piers. This project was practically completed in 1872, since which time expenditures have been for maintenance. The commerce is small and has been decreasing in recent years. There are no lines of boats now running regularly to this port. The district officer is of opinion that the project should be modified by abandoning that part of the improvement above the inner ends of the piers, retaining only the maintenance of the piers and the channel from their inner ends to the lake, the channel depth to be 8 feet at low water (about 10 feet at mean lake level). The cost of this maintenance work is estimated to be about $1,000 every five years. The division engineer and the Board of Engineers for Rivers and Harbors concur in the views of the district officer.

3. After due consideration of the above-mentioned reports, I concur in the views of the district officer, the division engineer, and the Board of Engineers for Rivers and Harbors, and therefore recommend that legislation be enacted authorizing the abandonment of that part of the improvement of Monroe Harbor, Mich., above the inner ends of the piers, and limiting the project to the maintenance of the piers and of a channel 8 feet deep at low water and 100 feet wide from the inner ends of the piers to the 8-foot contour in the lake, at an estimated cost of $1,000 every five years.

DAN C. KINGMAN,
Chief of Engineers, United States Army.

REPORT OF THE BOARD OF ENGINEERS FOR RIVERS AND HARBORS.

[Third indorsement.]

BOARD OF ENGINEERS FOR RIVERS AND HARBORS,
September 15, 1915.

To the CHIEF OF ENGINEERS UNITED STATES ARMY:

1. This report on Monroe Harbor, Mich., is submitted under authority of that portion of section 14 of the act of March 4, 1915, which reads:

> and the Chief of Engineers is directed to make a report upon any other projects, river or harbor, the further improvement of which under present conditions is undesirable, or in which modifications of the plans or projects should be made.

2. Monroe Harbor is within the mouth of Raisin River, about 18 miles north from the city of Toledo. The existing project, as last modified in 1872, provides for dredging a channel 11 feet deep at mean lake level and 100 feet wide to the city docks at Monroe and for protecting the entrance into the lake by piers. The total length of the channel is about $2\frac{1}{2}$ miles. The project was practically completed in 1872, since which time $96,706.20 have been expended for

maintenance. The total expenditures to June 30, 1915, amounted to $261,721.47. The present depth is about 8 feet through the entrance and 6 feet above at low water, which is about 2 feet below mean lake level.

3. The commerce reported for 1913 amounted to 2,155 tons, while the average for the past seven years has been about 7,500 tons. The district officer states there is no indication that the future commerce will be any greater than that in the recent past.

4. The investigations of the district officer lead him to the conclusion that the project should be modified by abandoning that part of the improvement above the inner ends of the piers, and limiting the work of the United States to the maintenance of the piers and of the channel from their inner ends to the lake with a depth of 8 feet, which he estimates will cost about $1,000 every five years. The division engineer concurs with the district officer.

5. It will be seen from an examination of the records that the commerce of this harbor has never been large and that its importance is decreasing. The length of river channel being maintained by the United States above the entrance is about 2 miles, and the expenditures thereon have been unduly large when compared with the commerce of the locality and the resulting benefits to navigation. It is believed that the cost of continuing this work and of maintaining the present project depth through the entrance is greater than is warranted by its prospective use. The board therefore concurs with the district officer and the division engineer, and recommends legislation authorizing a modification of the project, so as to provide only for the maintenance of the piers and of a channel 8 feet deep at low water and 100 feet wide from their inner ends to the 8-foot contour in the lake.

For the board:

FREDERIC V. ABBOT,
Colonel, Corps of Engineers,
Senior Member Present.

REEXAMINATION OF MONROE HARBOR, MICH.

WAR DEPARTMENT,
UNITED STATES ENGINEER OFFICE,
Detroit, Mich. August 2, 1915.

From: The District Engineer Officer.
To: Chief of Engineers, United States Army
(Through the Division Engineer).
Subject: Modification or abandonment of project, Monroe Harbor, Mich.

1. In compliance with the directions contained in the fourth indorsement, office Chief of Engineers, May 3, 1915, the following report is submitted upon the advisability of modifying or abandoning the present project for improving Monroe Harbor, Mich.

2. The harbor of Monroe, Mich., is in the mouth of the Raisin River at the western extremity of Lake Erie, about 18 miles north from the city of Toledo, Ohio. The town of Monroe, population about 7,000, lies on both banks of this river about $2\frac{1}{2}$ miles from the

lake. The docks at the town are on the south side of the river and have been regarded as the upper limit of the improvement. At this locality the river is about 230 feet wide and the bottom is of solid limestone rock. The locality is shown on map herewith and on Lake Survey chart No. 0, and coast chart No. 37.

3. Reference to previous examination or survey reports and maps or plans:

Section covered.	Congressional documents.				Annual Reports of Chief of Engineers.	
	House or Senate.	No.	Congress.	Session.	Year.	Page.
Canal and piers					[1] 1886	29
Lake and river					[2] 1872	237–239
Do					[2] 1880	2085–2086
Do					[3] 1889	2338–2340
Raisin River	House	81	Fifty-fourth	Second	[3] 1897	3094–3096
Lake and river	do	102	Fifty-fifth	do	[1] 1898	2689–2693

[1] Contains map. [2] Basis of project adopted by Congress. [3] No map.

The last report in the above table contains an estimate of the cost of obtaining a 14-foot depth of water by extending the piers, by dredging over the bar, renewing the canal revetment, and deepening the river and the artificial channel made therein at a total estimated cost of about $626,000. No specific sum was estimated for maintenance, but attention was called to the fact that this would be costly. This report was unfavorable.

4. The original project for the improvement of Monroe Harbor was adopted by act of February 24, 1835, based upon report of examination and survey made in 1834, which is not published but is referred to on page 2085 of the Report of the Chief of Engineers for 1880. It had for its object to dredge a new and direct channel 100 feet wide and 10 feet deep from the lake across the marsh, a distance of 4,000 feet, to the portion of the river ordinarily used as a harbor, the protection of the entrance into the lake by piers 726 feet long and 20 feet wide, extending outward to a depth of 10 feet in the lake, and the protection of the sides of the canal by a revetment. The estimated cost of the work exclusive of dredging machine was $55,885. The work was practically completed in 1845, a depth of 9 feet being obtained to a point just below the docks at Monroe. The piers were constructed of cribwork filled with stone, the north pier when completed being 1,350 feet long and the south pier 935 feet long. At their inner ends the piers are about 100 feet apart; they run parallel for a distance of 500 feet, when they commence to diverge, and are about 200 feet apart at the outer end of the south pier. Beginning at the inner end of the piers a canal 4,000 feet long and 100 feet wide was dredged through the marsh, and its sides were revetted with sheet piling. Subsequently the city of Monroe cut a canal across a bend of the river. This canal starts about 3,000 feet above the upper end of the United States canal, is about 1,300 feet long and 100 feet wide and about 13 feet deep. Above it the channel was dredged by the United States in the natural river bed to the docks, a further distance of about 4,500 feet.

5. The project was modified, by the river and harbor act of June 10, 1872, pursuant to plan in report of survey in 1871, to a depth of 11 feet at mean lake level, from the lake to the Monroe docks. Estimated cost, $12,600. A channel of this depth up to the docks at Monroe was secured in 1872.

6. The total amount expended on this work up to the close of the fiscal year ending June 30, 1915, was $261,721.47, of which about $110,000 was applied under the original project. It is impossible to determine just what portion of the total amount expended has been applied to maintenance, but no work except that of maintenance has been done since 1872, and the expenditures since that date have aggregated $96,706.20. The two piers have been maintained by the United States, and on the north pier there is a lighthouse and lightkeeper's dwelling, this light having been established in 1849. Minor repairs were made to the piers in 1914 at a cost of $375.86. At present the north pier is in fair condition. The timber in the superstructure of the south pier is rather badly decayed.

7. The commercial importance of this harbor is very small. There is no line of boats which runs regularly to the town of Monroe. At the piers there is a summer resort. There is considerable pleasure boating, and into the harbor are taken small quantities of sand and considerable fish. Small excursion steamers run to the piers during the summer season. The total commerce was reported for the year 1913 as about 2,155 tons, valued at about $81,000, the largest single item being fish, 700 tons, valued at $75,000. There is no indication that the future commerce will be any greater than that in the recent past. The maximum draft that can now be carried from the lake to the upper end of the United States canal is about 8 feet at low water, 2 feet below mean lake level 1860–1875, and about 6 feet thence to the city wharves.

8. The docks at Monroe city are owned by private parties, but are believed to be open to all water carriers on equal terms. There are no public docks, and it is understood that there is no public space which can be used for building such docks. There is no physical connection between the water terminals and the railroads. It is believed that there is no necessity for providing addition terminal and transfer facilities to care for any water commerce which may be developed in the future.

9. In view of the above facts it is my opinion that the existing project for Monroe Harbor should be modified by abandoning that part of the improvement above the inner ends of the piers. These piers were built and have been maintained for many years by the United States. They afford a sheltered entrance to the river for small boats and are of some use in this way. If their maintenance were abandoned they would decay above the water and might, of course, ultimately block the entrance entirely. It is therefore recommended that these two piers and the channel from their inner ends to the lake be maintained, the channel depth to be 8 feet at low water. The cost of this maintenance work is estimated to be about $1,000 every five years.

10. No question of the development of water power enters into the improvement of this harbor.

MASON M. PATRICK,
Lieut. Col., Corps of Engineers.

[First indorsement.]

OFFICE DIVISION ENGINEER, LAKES DIVISION,
Buffalo, N. Y., September 1, 1915.

To the CHIEF OF ENGINEERS:

Forwarded, concurring in the recommendation in paragraph 9 of the district officer's report, the channel width to be that of the present project, viz, 100 feet.

J. G. WARREN,
Colonel, Corps of Engineers.

[For Report of the Board of Engineers for Rivers and Harbors, see p. 2.]

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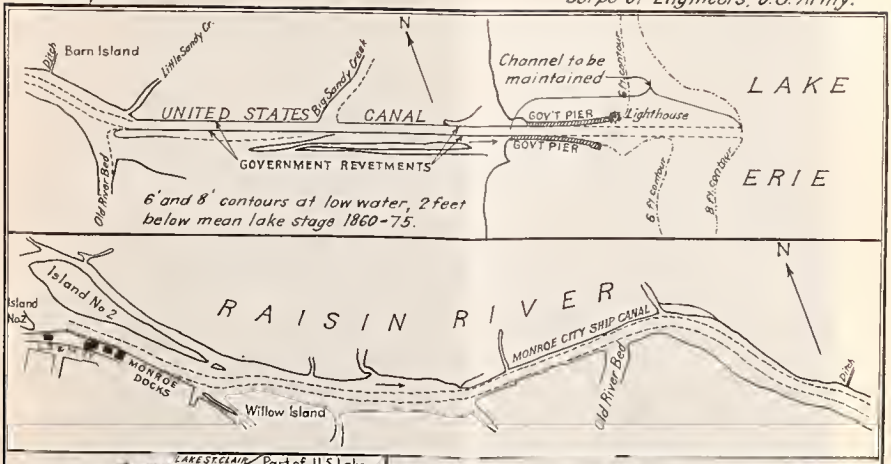
War Department. Corps of Engineers, U.S. Army.



Improvement of Harbor at MONROE, MICH.

Scale in Feet.

100 0 500 1000 1500 2000 2500 Ft.

Approved:
To accompany my report dated Aug. 2, 1915
Mason M. Patrick
Lieut. Colonel, Corps of Engineers, U.S. Army

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